

Year 2035 Long-Range Transportation Plan



Rockford Area Transportation Study

**YEAR 2035
LONG-RANGE TRANSPORTATION PLAN
for the
ROCKFORD AREA TRANSPORTATION STUDY
METROPOLITAN PLANNING AREA**

JULY 28, 2005

**This Plan was prepared as a cooperative effort between
Rockford Area Transportation Study
T.Y. Lin International
and
The al-Chalabi Group, Ltd.**

POLICY COMMITTEE

**Mayor Lawrence J. Morrissey – City of Rockford
Mayor Darryl F. Lindberg – City of Loves Park
Board Chairman Scott H. Christiansen – Winnebago County
President Linda M. Vaughn – Village of Machesney Park
Mayor Frederic C. Brereton – City of Belvidere
Board Chairman Susan L. Anderson – Boone County
Deputy Director Gregory L. Mounts – Illinois Department
of Transportation, Region 2**

Federal law requires this Plan to be updated every five years. This Plan can be amended or updated at any time.
Comments and proposed refinements or changes should be directed as follows.

Rockford Area Transportation Study
Rockford City Hall
425 East State Street,
Rockford, Illinois 61104
Phone: 815-987-5570
FAX: 815-967-7058

Document website: <http://cityofrockford.net/government/works/index.cfm?section=planning&id=977>

RATS

Rockford Area Transportation Study Metropolitan Planning Organization

City of Rockford, Public Works Department
425 East State Street, Rockford, IL 61104

POLICY COMMITTEE

Mayor Lawrence J. Morrissey, City of Rockford
Mayor Darryl F. Lindberg, City of Loves Park
Board Chairman Scott H. Christiansen, Winnebago County
President Linda M. Vaughn, Village of Machesney Park
Mayor Frederic C. Brereton, City of Belvidere
Board Chairman Susan L. Anderson, Boone County
Deputy Director Gregory L. Mounts, Illinois Department of
Transportation, Region 2

ROCKFORD AREA TRANSPORTATION STUDY POLICY COMMITTEE

RESOLUTION 2005-6

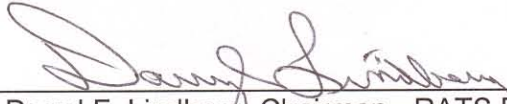
RE: YEAR 2035 LONG-RANGE TRANSPORTATION PLAN

- WHEREAS** the Rockford Area Transportation Study (RATS) is the Metropolitan Planning Organization (MPO) for the Rockford Metropolitan Area, and the RATS Policy Committee is responsible for transportation planning within the area; and
- WHEREAS** the Transportation Equity Act for the 21st Century (TEA-21) and its predecessor, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), require a Long-Range Transportation Plan; and
- WHEREAS** a comprehensive update to the Long-Range Transportation Plan has been prepared in the interest of promoting, developing and maintaining a safe and efficient multimodal transportation system that will meet the needs of the area's citizens, businesses and industries through the year 2035; and
- WHEREAS** as part of the MPO planning process, RATS (1) considered a wide range of citizen, community and technical input in accordance with the adopted RATS Public Involvement Process; (2) provided opportunities for public input and comment at all RATS Technical and Policy Committee meetings and other informational meetings; and (3) made the June 22, 2005 draft of the update available for public inspection and comment for a 30-day period via distribution to all persons on the RATS mailing list, including the public libraries and other public places, and posting the draft on the City of Rockford website; and
- WHEREAS** Appendix A of the Long-Range Transportation Plan summarizes the comments received by the July 25, 2005 public comment period as they pertained to the draft and details the changes and/or responses resulting from said comments (none of which are regarded as substantive enough to warrant an extended public review period); and
- WHEREAS** the RATS Technical Committee has reviewed the June 22, 2005 draft and the proposed changes as outlined in Appendix A and has recommended incorporation of these changes into a final draft and subsequent adoption by the RATS Policy Committee; and
- WHEREAS** the above said changes have been incorporated into the July 28, 2005 version of the LRTP and the Policy Committee has reviewed the July 28, 2005 document;

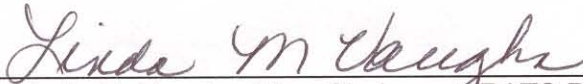
NOW, THEREFORE, BE IT RESOLVED

that the Policy Committee adopts the Year 2035 Long-Range Transportation Plan (dated July 28, 2005) for the purpose of coordinating transportation improvements and the delivery of public transportation services over the next 30-year period (Year 2005 – 2035).

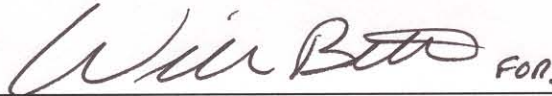
Dated this twenty-eighth day of July, 2005.



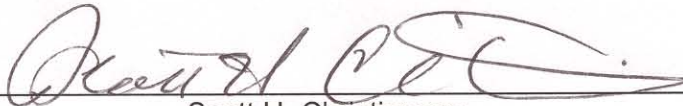
Darryl F. Lindberg, Chairman - RATS Policy Committee
Mayor,
City of Loves Park



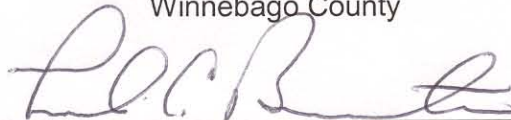
Linda M. Vaughn, Vice-Chairman - RATS Policy Committee
Village President,
Village of Machesney Park

 FOR.

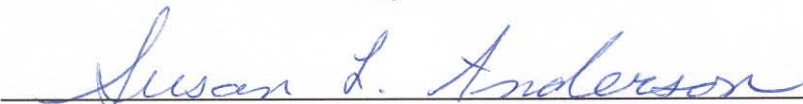
Lawrence J. Morrissey
Mayor,
City of Rockford



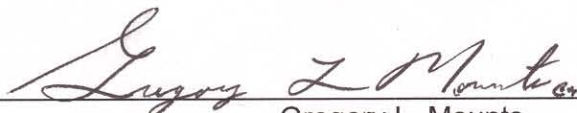
Scott H. Christiansen,
Winnebago County Board Chairman,
Winnebago County



Frederic C. Brereton,
Mayor,
City of Belvidere



Susan L. Anderson,
Boone County Board Chairman,
Boone County



Gregory L. Mounts,
Deputy Director,
Illinois Department of Transportation, Region 2

TABLE OF CONTENTS

ACRONYMS.....	1
1. INTRODUCTION	3
1.1 Background	
1.2 Goal and Objectives	
2. PLAN DEFINITION	5
2.1 Federal Guidance	
2.2 State Guidance	
2.3 The Regional Planning Process	
2.4 Socio-Economic Profile	
2.5 Land Use Planning and Urban Form	
2.6 Transportation Model	
2.7 Public Finance	
2.8 Public Involvement	
2.9 Environment Justice	
3. PUBLIC FUNDING	34
3.1 Airports	
3.2 Bikeway/Pedestrian	
3.3 Rail	
3.4 Roadways	
3.5 Transit	
4. AIRPORTS	44
4.1 Introduction and Background	
4.2 Northwest Chicagoland International Airport at Rockford	
5. BIKEWAY/PEDESTRIAN	61
5.1 Bikeway System	
5.2 Pedestrian System	
5.3 Bikeway/Pedestrian Recommendations	
6. RAIL	65
6.1 Rail Systems	
6.2 Rail Freight Volumes	
6.3 Rail Consolidation Study	
7. ROADWAY.....	72
7.1 Roadway Functional Classification	
7.2 Roadway Standards	
7.3 Truck Freight	
7.4 Proposed Roadway Improvements	

7.5	Project Categorizing and Cost Estimating	
7.6	Roadway Projects Beyond Year 2035	
8.	TRANSIT	91
8.1	Rockford Mass Transit District	
8.2	Belvidere/Boone Demand Response Service	
8.3	Rockford Mass Transit District Capital Improvement Plans	
8.4	Other Transit Plans	
8.5	Intercity Private Bus Service	
8.6	Proposed Commuter Rail	
9.	REGIONAL ECONOMIC DEVELOPMENT	103
9.1	Population and Household Trends and Forecasts	
9.2	Employment Trends and Forecasts	
9.3	Commuting Patterns	
9.4	Input-Output Model of the Rockford Economy	
9.5	Other Economic Development Considerations	
9.6	Conclusion	
10.	PLAN REFINEMENT	136
10.1	Air Quality	
10.2	Congestion Management Systems	
10.3	Context Sensitive Solutions	
10.4	Human Service Transportation	
10.5	Intelligent Transportation Systems	
10.6	Linking Planning and Operations	
10.7	Planning and the National Environmental Protection Act	
10.8	Public-Private Partnerships	
10.9	Safety and Security	
10.10	Smart Growth	
10.11	Strategic Regional Arterials	
11.	REFERENCES	161

LIST OF FIGURES

2-1	Trip Duration Distribution.....	30
4-1	Existing and Forecast Air Cargo Tonnage at Northwest Chicagoland International Airport at Rockford	54
4-2	Existing and Forecast Commercial Passenger Enplanements at Northwest Chicagoland International Airport at Rockford.....	60

LIST OF MAPS

2-1	Metropolitan Planning Area Setting.....	9
2-2	Total Population	12
2-3	Black Population	12
2-4	Hispanic Population	12
2-5	All Other Racial Minorities	12
2-6	Low-Income Households.....	13
2-7a	Year 2000 Dwelling Unit Density	16
2-7b	Year 2025 Dwelling Unit Density	16
2-8a	Year 2000 Job Density	16
2-8b	Year 2025 Job Density	16
2-9a	Year 2000 Total Dwelling Units	17
2-9b	Year 2000-2025 New Dwelling Units.....	17
2-10a	Year 2000 Total Jobs.....	17
2-10b	Year 2000-2025 New Jobs	17
2-11	Existing Public and Semi-public Facilities and Other Special Attractions	19
2-12	Significant Commercial Areas	20
2-13	Significant Industrial Areas.....	21
2-14	Boone and Winnebago Greenway Plan.....	25
2-15	Environmental Protection Agency Approved Facility Planning Areas for Waste Water Treatment	28
2-16	Regional Traffic Modeling Area	29
4-1	Northwest Chicagoland International Airport at Rockford Future Layout Plan	56
6-1	Existing Freight Rail	67
7-1	Existing (2005) Functionally Classified System of Roadways	74
7-2	Existing Truck Route System.....	79
7-3	Planned Roadway Improvements from Present to Year 2035.....	82
8-1	Weekday Rockford Mass Transit District Daytime Transit Routes.....	93
8-2	Percent Population Using Public Transportation	96
9-1	Northern Illinois-Northwestern Indiana-Southeastern Wisconsin Region.....	107
9-2	1990-2000 Population Change by Census Block	108
9-3	Existing Total Employment by Census Block Group	115
9-4	Existing Total Employment Per Square Mile.....	116
9-5	Major Employers	117
9-6	Land Offered for Development	132
9-7	Building Space for Rent or Sale	133
10-1	Current Level of Service	140
10-2	Year 2025 Level of Service.....	141

10-3	Potential Strategic Regional Arterials	158
------	--	-----

LIST OF TABLES

2-2	Representation on the Rockford Area Transportation Study Policy Committee	7
2-1	Representation on the Rockford Area Transportation Study Technical Committee	7
2-2	Rockford Metropolitan Planning Area Population by Jurisdiction	10
2-3	Rockford Metropolitan Planning Area Population Profile	14
2-4	Population, Households and Employment Forecast For Rockford Metropolitan Statistical Area	14
2-5	Status of Formal Land Use Planning Efforts	23
2-6	Municipal Units That Provide Sanitary Sewer or Water	26
3-1	Roadway Public Funding	36
3-2	Roadway Funding (1,000's) Five-Year (2000-2005) Annual Average	37
3-3	Roadway Expenditures by Project Type Five-Year (2000-2005) Annual Average	37
3-4	Roadway Expenditures by Jurisdiction Five-Year (2000-2005) Annual Average	38
3-5	Rockford Mass Transit District Capital Fund Sources (1995-2004)	41
3-6	Rockford Mass Transit District Operating Funds Sources (1995-2004)	42
4-1	Northwest Chicagoland International Airport at Rockford Runways	44
4-2	Commercial Airlines Serving Northwest Chicagoland International Airport at Rockford	45
4-3	Popular Grove Airport Runways	46
4-4	Federal Aviation Administration Forecast Table 21 – United States Mainline Air Carriers Air Cargo Revenue Ton Miles	48
4-5	Comparative Freight Data All-Cargo Data	48
4-6	Chicago O'Hare International Airport Freight and Mail Tonnage	50
4-7	Growth in Cargo Tonnage for the United States and Chicago O'Hare International Airport (in percent)	51
4-8	Existing and Forecast All-Cargo Carried Tonnage at an Unconstrained Chicago O'Hare International Airport	52
4-9	Office of Aviation Policy and Terminal Area Forecasts Enplanement Data for Northwest Chicagoland International Airport at Rockford; 1976-2004 and Forecast Data to 2020	57
4-10	Northwest Chicagoland International Airport at Rockford Airlines and Destinations	58
4-11	Northwest Chicagoland International Airport at Rockford Commercial Passengers	58
4-12	United States Generated, Northwest Chicagoland International Airport at Rockford Generated and Captured Enplanements	59
5-1	Results from January 20, 2005 Bicycle/Pedestrian Workshop	62
6-1	Rockford Metropolitan Planning Area Businesses Served by Railroads	68
6-2	Distance and Travel Times from Rockford Area	69
7-1	Northwest Chicagoland International Airport at Rockford Annual Cargo Generated Truck Traffic	77
7-2	Rochelle Global III Lift Capacity – Truck Movements	80
7-3	Major Capacity Expansion Projects	84
7-4	30-Year Project Cost Summary	89
8-1	Rockford Mass Transit District Ridership	91
8-2	Forecast of Rockford Mass Transit District Plans Capital Needs	98

9-1	Component of Population Change for Illinois counties from 2000-2004	103
9-2	Winnebago County Population and Household Forecasts	109
9-3	Boone County Population and Household Forecasts	109
9-4	Total Employment Forecasts	113
9-5	Industrial/Manufacturing (Including Transportation, Communications, Utilities, Wholesale) Employment	113
9-6	Retail Employment	113
9-7	Work Destination Counties for Winnebago County Residents	118
9-8	Work Destination Counties for Boone County Residents	118
9-9	County Residency of Workers Working in Winnebago County	119
9-10	County Residency of Workers Working in Boone County	120
9-11	Employment Due to Air Cargo Direct Job Forecasts	122
9-12	Forecast of Direct, Indirect and Induced Jobs of Air Cargo Operations	123
9-13	2001 Output, Value Added and Employment – Rockford Metropolitan Statistical Area (Winnebago and Boone Counties)	123
10-1	Air Quality Sampling Locations in the Rockford Metropolitan Planning Area	136
10-2	Ozone Eight-Hour Sample Results (parts per million) from Rockford Location	136
10-3	Level of Service Objectives for the Rockford Metropolitan Planning Area	138
10-4	Level of Service by Roadway Classification	138
10-5	Year 2025 Level of Service by Roadway Classification	142
10-6	Crash Statistics for Boone and Winnebago Counties	154

ADDENDUM

Public Comments and Responses

ACRONYMS

AASHTO – American Association of State Highway and Transportation Officials
ADA – Americans with Disabilities Act
ALP – Airport Layout Plan
BCCA – Boone County Council on Aging
BEA – Bureau of Economic Analysis
BJR – Beloit-Janesville-Rockford
BLS – Bureau of Labor Statistics
BRT – Bus Rapid Transit
CHSP – Comprehensive Highway Safety Plan
CMS – Congestion Management System
CN – Canadian National Railroad
CSD – Context Sensitive Design
CSS – Context Sensitive Solutions
CTPP – Census Transportation Planning Packages
EA – Environmental Assessment
EIS – Environmental Impact Statement
FAA – Federal Aviation Administration
FHWA – Federal Highway Administration
FPA – Facility Planning Area
FTA – Federal Transit Administration
FTZ – Foreign Trade Zone
GA – General Aviation
GDP – Gross Domestic Product
GIS – Geographic Information System
GRAA – Greater Rockford Airport Authority
IC&E – Iowa, Chicago and Eastern Railroad
IDES – Illinois Department of Employment Security
IDOT – Illinois Department of Transportation
IR – Illinois Railnet
ISTEA – Intermodal Surface Transportation Efficiency Act
ITS – Intelligent Transportation Systems
LOS – Level of Service
LPTD – Loves Park Transit District
LRTP – Long-Range Transportation Plan
MDW – Midway International Airport
MKE – General Mitchell International Airport
MPA – Metropolitan Planning Area
MPO – Metropolitan Planning Organization
MSA – Metropolitan Statistical Area
NAAQS – National Ambient Air Quality Standards
NEPA – National Environmental Protection Act
NHS – National Highway System
NICRI – Northern Illinois Commuter Rail Initiative
NIPA – National Income and Product Accounts

NIPC – Northeastern Illinois Planning Commission
NPA – NPA Data Services, Inc.
ORD – Chicago O’Hare International Airport
PEA – Planning Emphasis Areas
PPP – Public-Private Partnerships
RATS – Rockford Area Transportation Study
RCTO – Regional Concept for Transportation Organizations
RFD – Northwest Chicagoland International Airport at Rockford
RMTD – Rockford Mass Transit District
ROW – Right-of-Way
RPD – Rockford Park District
RRWRD – Rock River Water Reclamation District
RTA – Regional Transportation Authority
RTM – Revenue Ton Miles
RTMA – Regional Transportation Modeling Area
SES – State Employment Security
SLATS – State Line Area Transportation Study
SRA – Strategic Regional Arterials
STP – Surface Transportation Program
TAZ – Transportation Analysis Zones
TEA-21 – Transportation Efficiency Act for the 21st Century
TIP – Transportation Improvement Plan
TPS – Transportation Planning Study
TSM – Transportation Systems Management
UP – Union Pacific Railroad
UPS – United Parcel Service
WinGIS – Winnebago County Geographic Information System
WPE – Woods & Poole Economics, Inc.